

REMARKS

Status

This Amendment is responsive to the Office Action dated April 29, 2008, in which all claims were rejected. Claims 2 and 10 have been previously cancelled; Claims 1 and 17 have been amended; and new Claim 18 has been added. Accordingly, Claims 1, 3-9 and 11-18 are pending in the application, and are presented for reconsideration and allowance.

Claim Rejection - 35 USC 103

Claims 1, 3-9 and 11-17 stand rejected under 35 USC 103 as being unpatentable over US Patent No. 7,106,891 (Wyman) in view of US Patent Appl. No. 2003/0229268 (Uchiyama). This rejection is respectfully traversed.

Claims 1 and 17 call for determining a rotation angle between images and determining an accumulated rotation angle. The Examiner points to Wyman for determining a rotation angle and to Uchiyama for an accumulated rotation angle.

As recited in Claims 1 and 17, both the rotation angle and the accumulated rotation angle are determined using image data.

Uchiyama uses an in vitro magnetic field to measure the angles of the in vivo capsule camera to deduce the orientation of the images. Uchiyama particularly states:

[0058] Thereafter, at step S9, the control circuit 33 calculates an angle of rotation $\Delta\theta$ by which the $n-1$ -th image has rotated relative to the n -th image. The details will be presented below in conjunction with FIG. 11. For example, the orientation of a rotating magnetic field included in the first magnetic field data concerning the first image data shall be $B1(x1,y1,z1)$, the direction of the normal to the rotating magnetic field included therein shall be $R1(X1,Y1,Z1)$, the orientation of a rotating magnetic field included in the second magnetic field data concerning the second image data shall be $B2(x2,y2,z2)$, and the direction of the normal to the rotating magnetic field shall be $R2(X2,Y2,Z2)$.

It is submitted that the prior art does not teach or suggest determining an accumulated rotation angle using image data. Withdrawal of the rejection is respectfully requested.

Further, Wyman cannot align a CT image with an MRI image without an overlap between the images. The premise and foundation of Wyman is that CT image (e.g. as a reference image) must have an overlap region with the corresponding MRI image (the image to be aligned). As a result, the combination of Wyman with Uchiyama must also have an overlap otherwise the teachings of Wyman will be ignored and destroyed. This is in contrast to claim 17 "where the second arbitrary image and the reference image need not have a spatially overlapping area." Withdrawal of the rejection is further requested.

New Claim


New Claim 18 emphasizes "obtaining an accumulated rotation angle between other selected in vivo images and the first image with image data of the other selected in vivo images and the first image" and " where the first and second images need not have spatial overlap" which are submitted to not be taught or suggested by the prior art as discussed above.

Summary

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

For the reasons set forth above, it is believed that the application is in condition for allowance. Accordingly, reconsideration and favorable action are respectfully solicited.

Respectfully submitted,


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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Carestream Health, Inc. at 585/627-6687 or 585/627-6740.